

**REMARKS/ARGUMENTS**

In response to the Office Action dated April 23, 2004, please consider the following remarks.

In the Office Action issued April 23, 2004, claims 1, 4 and 7-24 were rejected under 35 U.S.C. §112, ¶1 as failing to comply with the written description requirement. Claims 1, 4, and 7-24 were rejected under 35 U.S.C. §112, ¶2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention and for omitting essential elements. The Examiner required that Figs. 1-4 be designated as "Prior Art".

Regarding the drawings, replacement drawing sheets have been submitted, which are believed to overcome the objections. Figs. 1-4 have been designated as "Prior Art".

Claims 1, 4, and 7-24 are now pending in this application. Claims 22-24 have been amended to more particularly point out the subject matter that the inventor considers to be the invention and to overcome the rejections under 35 U.S.C. §112, ¶1. Claim 16 has been cancelled. Corrections to Figs. 1-4 have been submitted.

Regarding the rejection of claims 1, 4, and 7-24 under U.S.C. §112, ¶1, the primary filter as claimed is fully defined throughout the specification, for example, at page 18, line 6 to page 19, line 22. The secondary filter as claimed is fully defined throughout the specification, for example, at page 21, line 20 to page 22,

line 5. The boundary as claimed is used in its standard dictionary meaning, for example,

bound·a·ry ( P ) Pronunciation Key (bound-r, -dr)

n. pl. bound·a·ries

1. Something that indicates a border or limit.
2. The border or limit so indicated.

Source: The American Heritage® Dictionary of the English Language, Fourth Edition, Copyright © 2000 by Houghton Mifflin Company.

An example of a data structure that may be used to implement the present invention is the well-known "spatial index" further including information disclosed at page 9, line 20 to page 10, line 3. Regarding page 17, lines 11-15, this is a portion of the definition of the terms "boundary tile" and "interior tile". Whether a particular tile is a boundary tile or an interior tile depends upon the geometry of the object involved, but the definition of these terms does not depend upon the geometry of the object involved. Regarding the term "mathematically", the claims have been amended to remove this term.

As a result of the foregoing remarks and amendments, it is believed that the application is in compliance with U.S.C. §112, ¶1.

Regarding the rejection of claims 1, 4, and 7-24 under U.S.C. §112, ¶2, the claims, for example, claim 1, does not recite a particular indexing scheme because

the particular indexing scheme is not an element of the present invention. Any suitable indexing scheme may be used to implement the claimed elements of the present invention. The specification of the present application discloses examples of several suitable indexing schemes and one of ordinary skill in the art would easily recognize any other indexing schemes that may be suitable. Claim 1, for example, recites that the objects are represented in a database, one of ordinary skill in the art would recognize the data structures, including indexes, that are involved in representing objects in a database. Dependent claim 17, for example, recites the use of a linear quadtree index, which is one example of a suitable index. As the particular indexing scheme used is merely a matter of implementation, the omission of claim language referring to an index is not the omission of an essential element of the invention.

Although the term "comparing" is not recited in the claims, for example, claim 1, the act of comparing, and the comparison conditions, are expressly recited by, for example, the language "if at least one tile of the first object intersects with at least one tile of the second object".

As a result of the foregoing remarks, it is believed that the application is in compliance with U.S.C. §112, ¶2.

Each of the claims now pending in this application is believed to be in condition for allowance. Accordingly, favorable reconsideration of this case and early issuance of the Notice of Allowance are respectfully requested.


**Additional Fees:**

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with this application to Deposit Account No. 19-5127 (19111.0037).

**Conclusion**

In view of the foregoing, all of the Examiner's rejections to the claims are believed to be overcome. The Applicants respectfully request reconsideration and issuance of a Notice of Allowance for all the claims remaining in the application. Should the Examiner feel further communication would facilitate prosecution, he is urged to call the undersigned at the phone number provided below.

Respectfully Submitted,



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